IN THE CLAIMS:

Please cancel without prejudice Claims 4, 6 through 13, 15 through 17, 19, 20 and 21 through 23. Please amend Claims 1, 5, 14 and 18, as follows.

1. (amended) A method of measuring a change in pressure inside an engine cylinder during combustion, said method comprising the steps of:

affixing at least one thick film resistor to a metal shell of a spark plug that provides combustion ignition to the engine cylinder;

including said at least one thick film resistor in a wheatstone bridge circuit;

applying a voltage to said at least one thick film resistor; ~~and~~

monitoring a change in resistance of said at least one thick film resistor in response to change in strain of the spark plug to ~~determine~~ sense change in pressure during combustion inside the engine cylinder; and

amplifying the change in resistance of said at least one thick film resistor with an automatic drift compensating circuit;

wherein said step of amplifying comprises:

comparing the voltage from each side of said wheatstone bridge circuit to produce a first voltage output and a second voltage output;

inputting said first and second voltages into an amplifier, said first amplifier producing a third voltage output;

balancing said first voltage output with said second voltage output; and

adjusting the output of said amplifier to a predetermined level when pressure in side the engine cylinder is equal to zero.

2. (original) The method of measuring a change in pressure inside an engine cylinder during combustion of claim 1, further comprising the step of:

orienting said at least one thick film resistor such that it measures axial strain of the spark plug.

3. (original) The method of measuring a change in pressure inside an engine cylinder during combustion of claim 1, further comprising the step of:

orienting said at least one thick film resistor such that it measures hoop strain of the spark plug.

4. (canceled)

5. (amended) The method of measuring a change in pressure inside an engine cylinder during combustion of Claim ~~4~~ 1,wherein said step of including comprises including said at least one thick film resistor in a selected one of a quarter wheatstone bridge circuit, a half wheatstone bridge circuit and a full wheatstone bridge circuit.

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10 (canceled)

11. (canceled)

12. (canceled)

13. (canceled)

14. (amended) The method of measuring a change in pressure inside an engine cylinder during combustion of claim ~~13~~ 5, further comprising the step of:

orienting said at least one thick film resistor, said orientation being selected for measuring at least one of axial strain of the spark plug and hoop strain of the spark plug.

15. (canceled)

16. (canceled)

17. (canceled)

18. (amended) ~~The~~ A method of measuring a change in pressure inside an engine cylinder during combustion ~~of Claim 16~~ , said method comprising the steps of:

orienting at least one thick film resistor, said orientation being selected for measuring one of axial strain of the spark plug and hoop strain of the spark plug; affixing said at least one thick film resistor to a metal shell of a spark plug that provides combustion ignition to the engine cylinder;

including said at least one thick film resistor in a wheatstone bridge circuit, wherein said wheatstone bridge circuit comprises a selected one of a quarter wheatstone bridge circuit, a half wheatstone bridge circuit and a full wheatstone bridge circuit;

applying a voltage to said at least one thick film resistor; ~~and~~

monitoring a change in resistance of said at least one thick film resistor in response to change in strain of the spark plug to sense change in pressure during combustion inside the engine cylinder; and

amplifying the change in resistance of said at least one thick film resistor with an automatic drift compensating circuit;

wherein said step of amplifying comprises:

comparing the voltage from each side of said wheatstone bridge circuit to produce a first voltage output and a second voltage output;

inputting said first and second voltages into an amplifier, said first amplifier producing a third voltage output;

balancing said first voltage output with said second voltage output; and

adjusting the output of said amplifier to a predetermined level when pressure in side the engine cylinder is equal to zero.

19 (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

IN THE DRAWINGS:

Applicants are submitting herewith new formal drawings sheets 3 and 4, including the following corrections.

At sheet 3: Figure 4A has been amended to add numeral "26", change the label of the amplifier 30 from "IN-AMP" to "OP-AMP", add an input resistor with label "R_{02}" at the non-inverting input of amplifier 32, and label "C_{01}" has been changed to "C_{02}" for the capacitor at the non-inverting input of amplifier 32.

At sheet 4: Figure 4B has been amended to add label "C_{04}" to the unlabled capacitor between resistor "R_{04}" and amplifier 44.